

Work Order ID 149000

Thursday, July 14, 2016 1:26:10 PM

149000

Page 1

Item ID: D3602-1

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Angle

Start Date: 7/14/2016 Start Qty: 12.00

12

Cust Item ID:

Required Date: 7/28/2016 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals: Process Plan:

DAS
21
9-89

Date: JUL 14 2016
Date:

Tooling:

Date:

Run Start *NR1*

QC:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3602

Rev B

100

0.02

100

Purchasing

Purchasing

Memo

ISSUE P/O: 33055
POSSIBLE SUPPLIER: GFI
C OF C IS REQUIRED

0.06

12 JUL 15 2016

DAS
13
9-89

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

0.04

12

DAS
6
9-89

AUG 15 2016

115

QC6- Inspect dimensions to drawing

0.00

115

QC

Quality Control

Memo

0.00

12

DAS
38
9-89

AUG 15 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Work Order ID 149000

Thursday, July 14, 2016 1:26:10 PM

149000

Page 2

Item ID: D3602-1

Accept

N9000040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Angle

Start Date: 7/14/2016 Start Qty: 12.00

12

Cust Item ID:

Required Date: 7/28/2016 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

NIA DAS 38 9-89

0.04

Quality Control

150

Identify as per dwg & Stock Location

0.00

150

Packaging

Memo

S201

DAS 6 9-89

0.02

Packaging

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.20

Quality Control

DAS
21
9-89

AUG 15 2016

AUG 16 2016

DAS
21
9-89

AUG 16 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, July 14, 2016 1:26:17 PM

Page 1

Work Order ID: 149000

149000

Parent Item: D3602-1

D3602-1

Parent Item Name: Angle

Start Date: 7/14/2016

Required Date: 7/28/2016

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 07-02-27 JLM
IPP Rev:B 08-12-11 as per ECN08-577 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3602-1P		Purchased			No		Each	0.0000					
D3602-1P													
Angle													

**

12X

DAS
6
9-89

AUG 15 2016

12
~~232~~ SP/68/10

DQA: _____ Date: _____

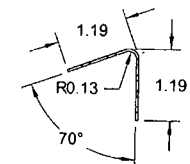
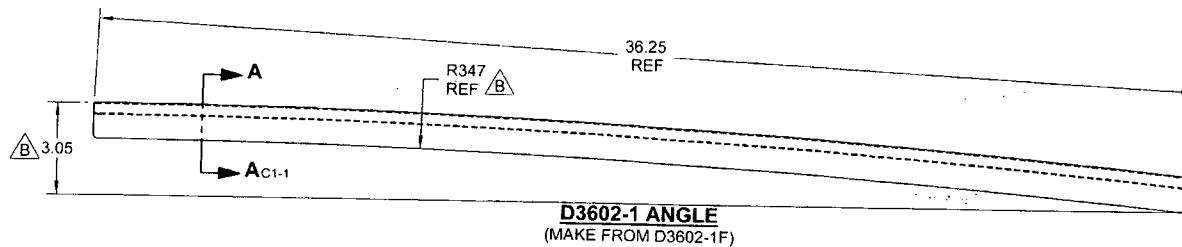


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
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SECTION A-A
SCALE 2X

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

R0.13
TYP

NO. 149000 M.C.
16-07-14

D3602-1F FLAT PATTERN

RELEASED
01/03/11 M.D.

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 20 GAUGE, 0.038 THICK, PER AMS 5513 OR AMS 5524, REF. DART SPEC. M304S20GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFY WITH DART P/N "D3602-1" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.97 lbs

B	ADDED ROUNDED SHAPE: R347 REF AND 3.05; 2.348 WAS 2.328. REF: NCR#09-014	MB	09.02.02
A	NEW ISSUE	MB	07.02.20
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.02.02		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3602 TITLE ANGLE REV. B SHEET 1 OF 1 SCALE NTS COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO33055

Purchase Order Date 7/15/2016

PO Print Date 7/19/2016

Page Number 1 of 2

Order From :
GFI
180 AVENUE LABROSSE
POINTE CLAIRE, QC H9R 1A1
CA

VC-GFI001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 514 630 4877

Ship To Contact
Ship To Phone
Ship Via: FedEx PI collect
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D3602-1P AS PER DWG D3602 REV. B B149000	Angle	7/18/2016 Yes 8/18/2016	FN	12.00 Each <i>16/8/15</i>	\$62.00	\$744.00
Line Total:							\$744.00
2	D3628-1P AS PER DWG D3628 REV. C B149001	Cupped Washer	7/18/2016 Yes 8/18/2016		232.00 Each	\$2.42	\$560.51
Line Total:							\$560.51

SP/6-8-10

Note:

7/19/2016



180 AVENUE LABROSSE
POINTE-CLAIRE, QC, CANADA H9R 1A1
TEL: (514) 630-4877 - FAX: (514) 630-4849

GFI est une division de Thomas & Betts Limitée / GFI is a division of Thomas & Betts Limited



BON DE LIVRAISON / SHIPPING MEM

DATE DE LIVRAISON / SHIPPING DATE				N° DE BON DE LIVRAISON / SHIPPING MEMO NO		PAGE
JR	DI	MO	AN	MO	AN	
10	08	16		0584935		1



VENDU À / SOLD TO

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

EXPÉDIÉ À / SHIP TO

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

CODE DE CLIENT / CUSTOMER CODE		N° DE CONTRAT / JOB NO	VOTRE N° DE COMMANDE / YOUR PURCHASE ORDER NO	EXPÉDIÉ PAR / SHIP VIA			
DART GFI-0299		0321004	PO33055				
QUANTITÉ / QUANTITY	N° DE PIÈCE / PART NO	DESCRIPTION					
2	D3602-1P	ANGLE ITEM 1 C OF C REQ'D FAI REQ'D					
MFG. JOB# J0287922-001 QTY 2 pcs							
DUE DATE: 15 August 2016							
EXPÉDITEUR / SHIPPER							

REÇU PAR / RECEIVED BY

DATE

TOUTES LES RÉCLAMATIONS DOIVENT ÊTRE FAITES EN DEDANS DE 5 JOURS DE LA RÉCEPTION
ALL CLAIMS MUST BE MADE WITHIN 5 DAYS OF RECEIPT



180 AVENUE LABROSSE
POINTE-CLAIRE, QC, CANADA H9R 1A1
TÉL.:(514) 630-4877 - FAX:(514) 630-4849

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BON DE LIVRAISON / SHIPPING MEMO

DATE DE LIVRAISON / SHIPPING DATE			N° DE BON DE LIVRAISON / SHIPPING MEMO NO		PAGE
JR	DY	MO	MO	AN	YR
10	08	16	0584934		1/1



VENDU À / SOLD TO

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

EXPÉDIÉ À / SHIP TO

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

CODE DE CLIENT / CUSTOMER CODE	N° DE CONTRAT / JOB NO	VOTRE N° DE COMMANDE / YOUR PURCHASE ORDER NO	EXPÉDIÉ PAR / SHIP VIA
DART	GFI-0299	PO33055	

QUANTITÉ / QUANTITY	N° DE PIÈCE / PART NO	DESCRIPTION
10	D3602-1P	ANGLE ITEM 1 C OF C REQ'D FAI REQ'D <i>16/8/15</i>
MFG. JOB# <u>0321004-001</u> QTY <u>10</u> pcs DUE DATE: <u>15 August 2016</u> 		

EXPÉDITEUR / SHIPPER

REÇU PAR / RECEIVED BY

DATE

TOUTES LES RÉCLAMATIONS DOIVENT ÊTRE FAITES EN DEDANS DE 5 JOURS DE LA RÉCEPTION.
ALL CLAIMS MUST BE MADE WITHIN 5 DAYS OF RECEIPT OF GOODS.

CERTIFICATE OF COMPLIANCE
CERTIFICAT DE CONFORMITE



Membre de / A Member of **Thomas & Betts**

180 LABROSSE AVENUE
POINTE CLAIRE, QC
H9R 1A1

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7

CERTIFICATE NO. 6 OUR JOB NO 0321004 SHIPPING MEMO 0584934

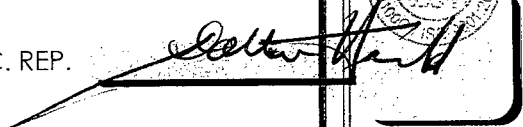
ITEM	QUANTITY	PURCHASE ORDER	PART NUMBER	REV	NAME	DWG ISSUE
<u>1</u>	<u>10 PCS</u>	<u>PO33055</u>	<u>D3602-1P</u>	<u>B</u>	<u>ANGLE</u>	<u>B</u>

MATERIAL	SUPPLIED BY	MAT. REL. NO.
<u>.040 THK AMS 5513 304 ANN</u>	<u>TW METALS/ NORTH AMERICAN STAINLESS</u>	<u>H/N X8R7</u>

	PROCESS	PROCESSOR	RELEASE NOTE #
1	<u>FIRST ARTICLE INSPECTION REPORT ON FILE</u>	<u>GFI</u>	<u>N/A</u>
2	<u>REF. GFI MANUFACTURING JOB NUMBER 0321004-001 (10 PCS)</u>	<u>GFI</u>	<u>N/A</u>
3			
4			
5			
6			
7			
8			
9			

WE HEREBY CERTIFY ALL THE PARTS COVERED BY THIS CERTIFICATE HAVE BEEN MANUFACTURED FROM MATERIAL SUPPLIED ON RELEASE NOTE SHOWN ABOVE AND THAT ALL PARTS HAVE BEEN INDIVIDUALLY INSPECTED AND CONFORM TO THE DRAWINGS AND PURCHASE ORDER REFERENCED ABOVE.

DATE 10 AUGUST 2016

G.F.I. Q.C. REP. 





1 Wright Avenue - Rear
LeRoy NY 14482
Tel: 585-768-5600
FAX: 15857685601

CERTIFICATE OF COMPLIANCE

Your Order Number: 0087681

Our delivery receipt Number: 12104955

Date: 6/13/16

This is to certify that the material shipped against the above order on the above delivery receipt, consisting of:

Quantity: 69.000 LB

Line Number: 1

Grade: 304 A AMS5513 .040

Part #: TS040481204A

Heat Number: X8R7

Specification:

Complies in all Respects with the item description



By:

Janice Clark

Authorized Test Department Clerk



METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Customer: 0018 001 MAIL TO: Ship To: Date: 2/08/2016 Page: 1
HAMILTON, OH 45015 HAMILTON, OH 45015

Your Order: 01027944 NAS Order: AN 0679816 01 Corrosion: ASTM A262/14;180Bond-OK

PRODUCT DESCRIPTION:

S/S COIL, C.R. ANNEALED & PICKLED; UNS 30400/30403/30200
ASTM A240/15a, A480/14b, A666/15; ASME SA240/13, SA480/13, SA666/13
CHEM ONLY ON FOLLOWING ASTM: A276/13, A479/13a, A484/13a, A312/13
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13
AMS 5511H/5513J/5516P XNRR; MIL-S-5059D AMD3 (X CRN MEAS); NIL-4043B
NACE MR0175/ISO 15156-3:2009 A, MR0103/07; QCS766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DfARS Compliant



Product ID	Supplier ID	Thickness	Width	Weight	Length	Mark	Pieces	COMMODITY CODE
02X8R7 B	* 02X8R7	.0401	48.0000	28.555	COIL	.2000	11	1 00731

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2J23

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical analysis per ASTM A751/08

HEAT	Supplier#	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
X8R7	X8R7	US	.0163	18.2790	.4435	1.7965	.3010	.0829	8.0520	.0280	.0010
Lab Check:			.0186	18.1830	.4210	1.8070	.3030	.0788	8.0600	.0290	.0013
			SI %								
			.3090								
Lab Check:			.3290								

MECHANICAL PROPERTIES

Product Id	Supplier Id	UTS KSI	20C .2% YS KSI	20C ELONG % 2"	% Hard RB	Tail Hard	180 Bond: 0.0"	Grain No.	D Per F.N.
02X8R7 B	02X8R7	F T 97.86	53.97	47.95	89.00	87.50	OK	12.00	3.39

UPMCC
Reviewed/Approved
Date: ALL

Dr. MV Date: 2-10-16
Page: 1

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

2/08/2016

UNITED PERFORMANCE METALS
This is to certify that in accordance with the records in our file no material shipped on your purchase order conforms to the following:

Size: 48 X 120
P.O.: D1201713
Part: NAS GHENT, KY
Sales #: 01273765
Quantity: 1

Description: 304/304L, 037-.045 ANSS513 PVC-2
Customer: GFI Incorporated
Shipped: 06/02/2016
Heat: X8R7

Authorized Signature
Lynne Rafter